

FROM RECRUITMENT TO REDUNDANCY: A SYSTEMATIC LITERATURE REVIEW OF THE IMPACT OF ARTIFICIAL INTELLIGENCE ON HR MANAGEMENT PRACTICES, ALGORITHMIC BIAS, AND THE URGENCY OF LABOUR REGULATION IN INDONESIA

Gunawan Widjaja

Senior Lecturer, Faculty of Law Universitas 17 Agustus 1945 Jakarta
widjaja_gunawan@yahoo.com

Abstract

This study presents a systematic literature review on the use of artificial intelligence (AI) in human resource management (HRM) practices, ranging from recruitment to redundancy, with a focus on algorithmic bias and the urgency of labour regulation in Indonesia. Through a thematic analysis of various literature, this article identifies how AI is transforming recruitment procedures, selection, development, performance appraisal, and decision-making regarding termination of employment, whilst highlighting the potential for efficiency and improved organisational performance, which is offset by risks of discrimination, lack of transparency, and dehumanisation in employment relationships. The study also emphasises that labour regulations in Indonesia have yet to accommodate the characteristics of AI; consequently, an adaptive, worker-friendly legal framework is required, grounded in the principles of justice, non-discrimination, transparency, and algorithmic accountability.

Keywords: artificial intelligence, HR management, algorithmic bias, recruitment, redundancies, labour regulations, Indonesia

Introduction

The development of digital technology over the past two decades has brought significant changes to various industrial sectors, including human resource (HR) management practices. One of the most disruptive innovations is the application of artificial intelligence (AI), which enables automation, predictive analysis, and data-driven decision-making in workforce management (Schiller et al., 2025). This transformation not only enhances organisational efficiency but also fundamentally alters the relationship between workers and employers.

In a global context, organisations are increasingly adopting AI to support the entire HR management cycle, from recruitment to redundancy. Technologies such as machine learning and natural language processing are used to screen candidates, evaluate performance, and predict employee behaviour (Rodhiah et al., 2025). This indicates a shift from human judgement towards algorithmic decision-making in modern HR practice.

At the recruitment stage, AI has proven capable of accelerating the selection process through automated CV analysis, interview chatbots, and video analytics. Major companies such as Amazon and Google have implemented these systems to improve